

AU 157 40403

JA 9051961

1984

<p>84-111234/18 A97 E24 G02 P75 (E19 E32) DNTD 17.09.82 DAINIPPON TORYO KK (MATU) *JS 9051-961-A 17.09.82-JP-162051 (26.03.84) B41m-05 C09d-11 Aq. ink jet compsn. - contg. water-soluble dye, wetting agent and water soluble copper cpd. other than sulphate</p>	<p>A(12-W7D) E(5-L3B, 35-A) G(2-A4A) <b>539</b> Direct Red 277 or 225, C.I. Acid Red 87, 92, 52, 94 or 289 or C.I. Direct Black 51.</p>
<p>C84-047197 Full Patentees: Dainippon Toryo KK; Mitsushita Elec. In KK. <b>CLAIMED COMPOSITION</b> An aq. jet ink compsn. comprising water, a water-soluble dye, a wetting agent and one or more water-soluble Cu cpds. other than <math>\text{CuSO}_4</math> (0.1-5 wt. %) and opt. a quencher (0.1-5 wt. %), water-soluble solvent, surface tension improver, viscosity improver, antifungal agent and preservative. <b>ADVANTAGE</b> The compsn. has high printing workability, allowing for a long printing operation without plugging the jet nozzle. It provides images having high light fastness. <b>PREFERRED DYES</b> The water-soluble dye is C.I. Direct Blue 236, 203, 202, 199 or 15, C.I. Acid Blue 7 or 9, C.I. Acid Yellow 1, C.I.</p>	<p><b>PREFERRED WETTING AGENTS</b> The wetting agent is diethylene glycol, triethylene glycol, polyethylene glycol, glycerine, propylene glycol, ethylene glycol monomethyl ether, diethylene glycol monobutyl ether, ethylene glycol monomethyl ether acetate, tripropylene glycol methyl ether or hydroxyalkyl formamide. <b>PREFERRED COPPER CPD.</b> The Cu cpd. is <math>\text{CuCl}_2</math>, <math>\text{CuBr}_2</math>, <math>\text{Cu}(\text{NO}_3)_2</math>, Cu acetate, cuprous pyridylazonaphthol complex, cuprous ethylene diamine tetra-acetate complex, cuprous amino acrylic resin complex, a reaction product of dl-<math>\alpha</math>-alanine and Cu, a reaction product of Cu and glycine, a reaction product of Cu and lactic acid, or a reaction product of Cu and <math>\beta</math>-hydroxypropionic acid. <b>PREFERRED QUENCHER</b> The quencher is <math>\text{KI}</math>, <math>\text{KBr}</math>, <math>\text{KCl}</math>, <math>\text{KSCN}</math>, <math>\text{CoSO}_4</math>, <math>\text{Co}_2(\text{SO}_4)_3</math>, <math>\text{CuSO}_4</math>, <math>\text{FeSO}_4</math>, <math>\text{NiSO}_4</math> or Ni oxalate. <b>PREFERRED SOLVENT</b> J59051961-A</p>

The water-soluble solvent is dioxane, acetone, diacetone alcohol, 1-3C alkyl alcohol, DMF, DMSO or N-methyl-2-pyrrolidone.

PREFERRED ADDITIONAL MATERIALS

The surface tension controller is a cationic, anionic or amphoteric surfactant.

The viscosity improver is hydroxypropyl cellulose, carboxymethyl cellulose, hydroxyethyl cellulose or polyvinyl alcohol.

The antifungal agent or preservative is Na tetrahydroacetate, 1,2-bis(isothiazoline-3-one or 6-acetoxy-2,4-dimethyl-, dioxane. (7ppW-59WADwgNo. 0/0).

JS9051961-A